622. The tactile interface layer **100** of this variation preferably includes a layer **110** that defines a surface **115**, a substrate **120** that supports the layer **110** and at least partially defines a fluid vessel **127** that includes a volume of fluid **112**, and a displacement device **130** coupled to the fluid vessel **127** that manipulates the volume of fluid **112** to expand and/or contract at least a portion of the fluid vessel **127**, thereby deforming a particular region **113** of the surface **115**. The substrate **115** may also function to substantially prevent the layer **110** from inwardly deforming, for example, into the fluid vessel **127**. In this variation of the tactile interface layer **100**, the steps of manipulating the deformable region of the surface based on the command Steps S**140** and S**240** preferably include manipulating the fluid within the fluid vessel **127**. In particular, the displacement device **130** is preferably actuated to manipulate the fluid within the fluid vessel **127** to deform a particular region **113** of the surface. The fluid vessel **127** preferably includes a cavity **125** and the displacement device **130** preferably influences the volume of fluid **112** within the cavity **125** to expand and retract the cavity **125**. However, any other suitable method of manipulating the fluid **112** may be used.

[0016] The fluid vessel **127** may alternatively be a channel **138** or a combination of a channel **138** and a cavity **125**, as shown in FIG. **4**. The fluid vessel **127** may also include a second cavity **125***b* in addition to a first cavity **125***a*. When the second cavity **125***b* is expanded, a second particular region **113** on the surface **115** is preferably deformed. The displacement device **130** preferably influences the volume of fluid **112** within the second cavity **125***b* independently of the first cavity **125***a*. As shown in FIG. **6**, the tactile interface layer of this variation may include a valve **139** that functions to direct fluid within the tactile interface layer **100**. In this variation, the step of manipulating the fluid within the fluid vessel **127** may include actuating the valve **139** to direct fluid within the tactile interface layer **100**. Alternatively, the user interface enhancement system **100** may include a second displacement device **130** that functions to influence the volume of fluid **112** within the second cavity **125***b* to expand and retract the second cavity **125***b*, thereby deforming a second particular region **113***b* of the surface. The second cavity **125***b* is preferably similar or identical to the cavity **125**, but may alternatively be any other suitable kind of cavity. The following examples may be described as expanding a fluid vessel **127** that includes a cavity **125** and a channel **138**, but the fluid vessel **127** may be any other suitable combination of combination of cavity **125** and/or channel **138**. However, any other suitable type of tactile interface layer **100** may be used.

[0017] The tactile interface layer **100** preferably functions to provide tactile guidance to the user when using a device that tactile interface layer **100** to. As shown in FIG. **5**, the surface **115** of the tactile interface layer **100** preferably remains flat until tactile guidance is to be provided to the user at the location of the particular region **113**. In the variation of the tactile interface layer **100** as described above, the displacement device **130** then preferably expands the cavity **125** (or any other suitable portion of the fluid vessel **127**) to expand the particular region **113** outward, forming a deformation that may be felt by a user (referenced throughout this document as a "tactilely distinguishable formation"), and providing tactile guidance for the user. The expanded particular region **113** preferably also provides tactile feedback to the user when he or she applies force onto the particular region **113** to provide input. This tactile feedback may be the result of Newton's third law, whenever a first body (the user's finger) exerts a force on a second body (the surface **115**), the second body exerts an equal and opposite force on the first body, or, in other words, a passive tactile response. Alternatively, the displacement device **130** may retract the cavity **125** to deform the particular region **113** inward. However, any other suitable method of deforming a particular region **113** of the tactile interface layer **100** may be used.

[0018] The tactile interface layer **100** preferably includes a sensor that functions to detect the force applied to the deformed particular region **113** by the user. The force may be a force that substantially inwardly deforms the deformed particular region **113** of the surface, but may alternatively be a force that does not substantially inwardly deform the deformed particular region **113**. However, any other suitable type of force may be detected. For example, in the variation of the tactile layer as described above, the sensor may be a pressure sensor that functions to detect the increased pressure within the fluid **112** that results from an inward deformation of the deformed particular region **113**. Alternatively, the sensor may be a capacitive sensor that detects the presence of a finger on the deformed particular region **113**. In this variation, the presence of a force is deduced from the detected presence of the finger of the user. Alternatively, the sensor may be a sensor included in the device to which the tactile interface layer **100** is applied to, for example, the device may include a touch sensitive display onto which the tactile interface layer **100** is overlaid. The force of the user may be detected using the sensing capabilities of the touch sensitive display. However, any other suitable force detection may be used.

[0019] Similarly, the tactile interface layer **100** preferably includes a processor that functions to interpret the detected gesture as a command. The processor may include a storage device that functions to store a plurality of force types (for example, the magnitude of the force or the duration of the applied force) and command associations and/or user preferences for interpretations of the force as commands. The processor may be any suitable type of processor and the storage device may be any suitable type of storage device, for example, a flash memory device, a hard drive, or any other suitable type. The processor and/or storage device may alternatively be a processor and/or storage device included into the device that the tactile interface layer **100** is applied to. However, any other suitable arrangement of the processor and/or storage device may be used.

[0020] As shown in FIGS. **7-9**, in the first preferred embodiment of the method S**100**, the force on the deformed particular region is interpreted as a command for the firmness of the deformed particular region Step S**130** and the firmness of the deformed particular region is manipulated based on the command Step S**140**. The manipulation of the firmness of the deformed particular region may alternatively be thought of as manipulating the degree of deformation of the deformed particular region. For example, a fully deformed particular region **113** is of the highest firmness degree while a medium deformed particular region **113** is of a medium firmness degree. In the variation of the tactile interface layer as described above, manipulating the deformed particular region based on the command to change the firmness of the deformed particular region preferably includes manipulating the volume of fluid **112** within the fluid vessel **127**. As the pressure within the volume of fluid **112** is increased, the firmness of the resulting deformed particular region **113** will also increase. Similarly, as the pressure within the volume of